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Jan. 1978
PLEASE RETURNMONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCESMonthly Activities Report
of the Air Quality Bureau

STATE DOCUMENTS COLLECTION

January, 1978

FEB 28 1978

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980 E Lyndale Ave.
Helena, Montana 596011. Highlights:

The non-attainment designation report was prepared and submitted to EPA.

Conditional permit issued for Colstrip Units 3 and 4.

Work completed on Montana's Plan for SAMWG (Quality Assurance) implementation, which if fully carried out will require 4.5 man years and \$330,000 additional effort through 1980.

2. Ambient Air Quality Network:

a. Standards Exceeded

SO ₂ violations	Microwave	East Station	Broudy
State 1-hour	0	1	10
State 24-hour	0	0	0
Federal 3-hour	0	0	0
Federal 24-hour	0	0	0
High 1-hour	.20	.34	.80

	P.O.	Mill Creek	Hwy Jct.	C-Hill
No. of 1-hour excursions over 0.25	0	7	55	7
Highest 24-hour	.04	0.15	.35	.15
Highest 1-hour average	.17	1.08	1.46	2.14

CO - Butte	Alpine West
Highest 24-hour average	3.4
Highest 1-hour average	8.0

ASARCO exceeded federal 24-hour SO₂ standard of 0.14 ppm on ten occasions in December at the following stations:

Kennedy Park	12/10/77	0.17 ppm
Kennedy Park	12/13/77	0.17
Kennedy Park	12/27/77	0.15
Kleffner Ranch	12/9/77	0.19
Kleffner Ranch	12/10/77	0.16
East	12/9/77	0.17
East	12/10/77	0.22
North	12/10/77	0.17
North	12/11/77	0.16
North	12/12/77	0.15

SO₂ violations near Anaconda smelter:

State 1-hour	29
State 24-hour	2
Federal 24-hour	1
Federal 3-hour	2

b. Air Stagnation Advisories: None in January

c. Laboratory Status:

Total Determinations for Month	343
Total Samples for Month	271

d. Developments:

Made a verbal agreement with Corvallis, Oregon, EPA's contractor Battelle N.W. for routine operation of our Colstrip monitoring station. We shall exchange electronic assistance to Battelle.

3. Permits and Tax Credits:

a. Construction Permits - Applied for

Hilde Construction Co., Toole Co., gravel crushing plant
Hilde Construction Co., Glacier Co., portable gravel crushing plant
Pfizer Inc., Dillon, Jet stream classifier
Baltrusch Construction Co., Hill Co., portable asphalt hot mix plant
Wickens Brothers, Roosevelt Co., portable gravel crushing plant
Montana Power Company (received August 22, 1977), Colstrip Units 3 & 4
Empire Sand & Gravel Co., Meagher Co., portable gravel crusher
Baltrusch Construction Co., Hill Co., portable gravel crushing plant

Approved:

Edward Boehm, Livingston, Destroilet incinerator
Coram Lumber & Building Supply, Coram, sawmill with tepee burner
American Colloid Co., Malta, loaders, dryers, mills and loadout facilities, \$400,000
Louisiana Pacific Corp., Trout Creek, fuel cell and boiler, \$7,000
Montana Power Co., Colstrip, Units 3 & 4 coal-fired steam electric generating plant, control costs estimated in excess of \$250,000,000
Wickens Brothers, Roosevelt Co., portable gravel crushing plant
Weatherford Funeral Home, Kalispell, incinerator
Zook Brothers Construction, Madison Co., portable gravel crusher
Zook Brothers Construction, Madison Co., portable gravel crusher
Empire Sand & Gravel, Meagher Co., portable gravel crusher

b. Operating Permits - None

c. Tax Credits:

Met with Cenex and Department of Revenue personnel to discuss what refinery equipment was air pollution control equipment. It appeared that agreement was reached.

4. Variance Status:

a. Current

SO₂ variance for Anaconda Company was renewed at December Board meeting and expires June 30, 1978.

Anaconda Aluminum Company, Columbia Falls, F⁻ and particulate, expires June 30, 1978.

Anaconda's application for a variance from visibility rule for smelter has not been scheduled.

b. New - None in January

5. Enforcement Actions:

a. Citations

Champion International Corp., Bonner, 780125-JB-1 - 780125-JB-3, lime kiln #1 in violation of 16-2.14(1)-S1400 (Permits, Construction and Operation of Equipment), Condition #1 of Permit #R792-013975

Brand S Lumber, Livingston, 780106-BR-1, tepee burner in violation of Rule 16-2.14(1)-S14030 (Wood Waste Burners)

Brand S Lumber, Livingston, 780125-DH-1, tepee burner in violation of Rule 16-2.14(1)-S14030 (Wood Waste Burners)

Stauffer Chemical Co., 780124-HK-1, plant in violation of Board Order issued March 19, 1976

Del Conner Lumber, Darby, 780130-JB-1, tepee burner in violation of rule 16-2.14(1)-S14030 (Wood Waste Burners)

Diamond International Corp., Superior, 780131-JB-1, tepee burner in violation of rule 16-2.14(1)-S14030 (Wood Waste Burners)

b. Notices of Violation

Brand S Lumber, Livingston, N780106-BR-1, tepee burner in violation of Rule 16-2.14(1)-S14030 (Wood Waste Burners)

c. Order for Corrective Action

Brand S Lumber, Livingston, ordered to bring tepee burner into compliance by June 15, 1978

d. Court Actions

Requested Lake County Attorney to take action against James Vert of Polson for open burning during an air stagnation advisory period.

6. Tepee Burner and Open Burning:

Tepee burners at Eastmont Forest Products in Ashland, Spring Creek Forest Products in Judith Gap and Brand S Lumber Company in Lewistown are scheduled for startup within one to three months.

Tepee Burners:

No. at start	40
New starts	1
Shutdowns	0
No. at end	41

Open Burning:

Kalispell Office	6	Cascade County	3
Lake County	11	Yellowstone County	17
Sanders County	2	Rest of State	114
Missoula County	18	Total for State	171

7. Source Tests Performed:

A. Agency Source Tests - None

b. Non-Agency

Hoerner-Waldorf, 14 particulate tests on recovery boilers, lime kilns, hogged fuel boiler, smelt tanks

Report on second series of tests on Great Western Sugar Company's boiler plant was received. They appear to be in compliance with all applicable emission standards.

8. Field Investigations:

Spring Creek Forest Products, Judith Gap, tepee burner, inspection, not operational
Stauffer Chemical, Butte, investigation to determine status with Board Order of March 19, 1976. On schedule except furnace scrubbing area, citation issued.
ASARCO, East Helena, inspection of new sulfuric acid plant, in compliance
Del Conner Lumber, Darby, tepee burner inspected, out of compliance, citation issued
Champion Building Products, Darby, wood fired boiler, in compliance
Diamond International, Superior, tepee burner, citation issued; wood-fired boiler in compliance
Idaho Cedar, Superior, tepee burner, inspection, in compliance
Louisiana Pacific, Missoula, investigation of particleboard plant, in compliance
Louisiana Pacific, Deer Lodge, tepee burner, inspection
Brand S, Livingston, inspection of tepee burner
Milwaukee Road, Deer Lodge, open burning of railroad cards, investigation
McElroy and Wilken, Kalispell, cement plant, application and conference
Klingler Lumber, Kalispell, tepee burner, documentation, in compliance
Buttrey Foods, Kalispell, incinerator, inspection
Plum Creek Fiberboard, Columbia Falls, conference regarding explosion and aborting aborting baghouses due to damage; investigation continuing

8. Field Investigations, continued

Plum Creek Plywood, Columbia Falls, documentation of cyclones on chip bin, in compliance
Weatherford Funeral Home, Kalispell, conference regarding application for crematorium
Clancy Landfill, inspection, letter of recommendation from Solid Waste Bureau
Brand S Lumber, Livingston, teepee burner, Notice and Order issued

9. Complaints:

Brand S Lumber, Livingston, heavy smoke, investigation, documentation, 14 complaints, Notice of Violation and Order served
Burlington Northern, Drummond, burning ties, investigation
Texas Pipeline, Shelby, burning oil spill, referred to county sanitarian
Milwaukee Railroad, Garrison, burning railroad ties, investigated and corrected
Clancy Dump, Clancy, open burning, investigation (2 complaints)
Burlington Northern, Livingston, acid fumes, discharging oil into river, referred to Occupational Health and Water Quality for investigation
Conoco, Billings, H₂S causing nausea and headache, investigation
Great Western, Billings, smoke and odor, upset which will be corrected (2 complaints)
Exxon, Billings, coke dust blowing, investigation
St. Regis Lumber, Libby, smoke inside plant, referred to Occupational Health

10. Data Processing Services:

- a. Ambient Data Summary: See attached
- b. Emission Inventory Status: No significant activities
- c. Prevention of Significant Deterioration - No significant activities
- d. Modeling: No significant activities

11. Environmental Impact Statements:

- a. Agency Impact Determinations: None
- b. Other Agency EIS's reviewed: None

12. Status of Studies, Contracts and Reports:

Poplar River Report, interim report due February 17, continuation grant for 1978 not yet received

Rockwell International has responded to contract proposal to evaluate Anaconda's in-stack instruments, update is needed

ASARCO-Troy Project, draft EIS deadline extended by ASARCO to May 1. \$12,195 spent of \$21,560.

MAPS Emission Inventory Update and Improvement - proposals from various contractors are being reviewed.

12. Status of Studies, cont.

MAPS - EPA in Research Triangle Park is selecting control group for mortality study.

MAPS, carcinogenicity-mutagenicity portion of study has begun, to be completed by December 31, 1978.

MAPS, Historical Research Associates have begun their study, to be completed by December 31, 1978.

SAMWG - Report completed and sent to EPA.

Missoula TSP - Missoula designated as non-attainment area. Local government will try to get designated as lead agency.

Billings CO and TSP - Billings designated as non-attainment area.

13. Schools and Training:

None in January

14. Public Hearings and Meetings:

a. Public Hearings Held:

Board of Health meeting on Billings AQMA and AAQ standards

b. Meetings Attended

Anaconda Co., staff, upper air study and emergency episode

Smoke Management agencies in Oregon and Washington

MAPS System design and AQDHS installation, Helena

ASARCO, Helena, non-attainment modeling

National Weather Service, dispersion forecasts, Clearwater Junction

Staley Engineering, Columbia Falls, air quality

Anaconda Aluminum, compliance schedule

Nevada Resources Corp., new metallurgical operation

EPA, Helena, AQMA/non-attainment

EPA, Helena, source compliance

Solid Waste, burning dumps

Legal Division, Brand S

MAPS, Dr. Warren, Rogers and Vyse, Bozeman, carcinogenicity-mutagenicity study

MAPS, Emission Inventory Advisory Committee meeting, Helena

MAPS Committee meetings, Missoula

EPA, Denver, workshop on application of PSD rules for surface mines

Genex, Dept. of Revenue, Helena, to discuss tax classification of refinery equipment

Highway Impact Evaluation Group, Helena

EPA, PEDCo, AQB, and air quality officials in Helena to discuss status of SIP

Revisions and data needed by PEDCO

c. Intra-Staff Meetings:

AQB Staff Meetings
MAPS Staff Meetings

15. Public Information Requests:

Rules	14
Clean Air Act	8
General	14
Telephone interviews -	2

16. N.A.

17. Other

Applicants are being interviewed for the engineering position now vacant in Billings.

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

December, 1977

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Pollutant: Misc. Indicators

Units:

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
144	Fluoride Plates Dehlborn Hc Box Flathead Co. Anaconda South Flathead Co. Glacier Park #1 Glac Nat. Park Glacier Park #2 Glac Nat. Park Glacier Park #9 Glac Nat. Park	mg/eq	cm/30 days				
144	Fluoride Plates Anaconda South Flathead Co. Treatler - MAAC Flathead Co. Glacier Park #1 Glac Nat Park Glacier Park #2 Glac Nat Park Glacier Park #9 Glac Nat Park	mg/eq	cm/30 days				

Pollutant: Misc. Rubbler Data

Units: ppm

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
140	Sulfur Dioxide Lockwood School Billings	0.0458	0.1351	0.1351	0.0269	9	
143	Scobey Daniels Co. Fort Peck McCone Co. Lame Deer Rosebud Co. BN Site Colstrip Nitrogen Dioxide						
143	Scobey Daniels Co. Fort Peck McCone Co. Lame Deer Rosebud Co. BN Site Colstrip						

****- equipment down

Pollutant: Misc. Indicators

Units:

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
141	Mountain States Great Falls Fire Sta. #1 Great Falls Fairgrounds Great Falls Sulfation Rate -	0.0	80.64	80.64	26.96	12	
140	1/8 mi NE Coop Billings East of Laurel Billings Hi-Ball Trucking Billings	4.350	4.380	4.380	2.343	11	
141	Stock Car Track Great Falls Phillips Ref N1 Great Falls Phillips Ref E Great Falls	1.990	3.220	3.220	1.794	9	
141	Phillips Ref E Great Falls Microcove E. Helena 212 E Pacific E. Helena East Stock Sta E. Helena	0.498	0.607	0.607	0.257	11	
142	Microcove E. Helena 212 E Pacific E. Helena East Stock Sta E. Helena	0.164	0.629	0.629	0.415	10	
142	Microcove E. Helena 212 E Pacific E. Helena East Stock Sta E. Helena	0.012	0.575	0.575	0.336	12	

Pollutant: TSP.

Units: ug/cu meter

AQCR	AREA	HIGH READING			ARITHMETIC AVER.		Comments
		Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
140	Morton-Decker Big Horn Co. Warren Ranch Big Horn Co. Lockwood School Billings KORL Billings City Hall Billings Grand Ave. Sch. Billings Laurel Jr. High Laurel	159	159	159	49.2	12	1 ex Fed Sec 54d
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	17	108	108	24.7	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	61	166	166	55.4	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	42	163	163	38.3	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	55	165	165	62.7	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	47	155	155	52.7	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	81	150	150	41.2	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	105	225	225	44.0	12	
141	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	151	869	869	69.0	12	1 ex Fed Sec 54d
142	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	411	411	411	105.7	7	2 ex Fed Pri 54d
142	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	84	161	161	49.8	12	
142	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	83	217	217	63.6	12	
142	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	185	233	233	92.7	9	1 ex Fed Sec 54d
142	Hospital Roof Great Falls Fire Sta. #1 Great Falls 10th Ave. So. Great Falls HiWay Jct Anaconda McKinley Res Granite Co Greeley School Butte Gliman Constr. Butte	265	297	297	90.7	8	1 ex Fed Pri 54d

*** data unavailable at time of report

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

December, 1977

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Pollutant: TSP

Units: ug/cu meter

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
142	Atkins Res.	36	130	103	41.7	9	
	Walker Res.						
	Richer Res.	19	49	49	21.8	9	
	S.11. Bow Co.						
	Tierney Res.	69	89	89	35.7	9	
	S.11. Bow Co.						
	Microvase	60	103	103	27.4	12	
	Jefferson Co.						
	212 E. Pacific	129	192	192	75.7	12	
	Lewis & Clark Co.						
	Kober Res.	53	309	309	110.0	5	
143	Three Forks						
	Littlefield Hill	8	45	45	20.0	12	
	Miles City						
	Glendive	17	51	51	22.8	12	
	Davson Co.						
	Lane Deer	6	243	243	25.7	12	
	Rosabud Co						
	Fort Peck	7	88	88	24.6	10	
	McCona Co.						
	Law Site	8	275	275	23.0	12	
	Colstrip						
	Border Site						
	Scobey	18	107	107	29.0	10	

Pollutant: TSP

Units: ug/cu meter

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
144	Anders Res.						
	Col Falls	89	467	467	111.2	12	
	Courthouse						
	Missoula	266	295	205	96.6	12	4 ex Fed Sec Std 1 ex Fed Pri Std
	JB Field						
	Missoula Co.	93	180	180	53.0	12	
	Kalispell						
	Flathead Co	54	226	226	75.4	12	
	Troy-Brown						
	Lincoln Co	90	171	171	57.9	9	
	Troy-Sampson						
	Lincoln Co	15	171	171	27.9	5	
	Hoerner Wald #1						
	Missoula Co.	59	255	255	34.0	9	
	Hoerner Wald #2						
	Missoula Co.	66	255	255	35.6	9	
	Hoerner Wald #3						
	Missoula Co	61	84	84	25.1	6	
	Courthouse Lawn						
	Missoula	243	279	279	80.3	5	
	Brown Res.						
	Libby	96	196	196	113.1	4	
	Lion's Park						
	Missoula	335	335	335	104.0	1	3 ex Fed Pri Std

**** no valid samples for Dec.

Pollutant: Misc. Continuous Data

Units: ppm

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
140	Carbon Monoxide						
	27th & Montana						
	Billings	19.20	19.20	19.20	2.316	12	2 ex Nat 8hr Std
141	10th Ave. S.						
	Great Falls	23.10	23.10	23.10	2.360	6	1 ex Nat 8hr Std
142	Alpine West						
	Butte	10.00	14.00	4100	0.849	7	
144	Malfunction Jet.						
	Missoula	31.60	31.60	31.60	5.678	11	26 ex Nat 8hr Std
	Hydrocarbons						
140	27th & Montana						
	Billings	9.90	26.40	26.40	3.071	12	
	Nitric Oxide						
143	BN Site						
	Colstrip						
	Nitrogen Dioxide						
140	27th & Montana						
	Billings						
142	Alpine West						
	Butte						
143	BN Site						
	Colstrip						
143	Oxides of Nitrogen						
	BN Site						
	Colstrip						

** data questionable

*** equipment down

Pollutant: Misc Continuous Data

Units: ppm

AREA		HIGH READING			ARITHMETIC AVER.		Comments
ACQR	Site Location	Current Month	Year-to-Date	Running Year	Year-to-Date	No. of Days of Data	
140	Ozone						
	27th & Montana						
	Billings	0.04	0.08	0.08	0.018	12	
142	Alpine West						
	Butte						
140	Sulfur Dioxide						
	27th & Montana						
	Billings	0.04	0.20	0.20	0.002	12	
	Laurel Farm						
142	Billings						
	East Street	0.30	0.66	0.66	0.013	42	2 ex MT 1hr std 2 ex MT 24hr Std
	E. Helena						
	Microvase	0.58	1.40	1.40	0.011	12	1 ex Nat 24hr Std
	Groudy Ranch						
	E. Helena	0.88	0.88	0.88	0.037	1	2 ex Nat 3hr Std 3 ex Nat 3hr Std
	C-Hill						
	Anaconda	2.90	3.51	3.51	0.023	12	1 ex Nat 24hr Std 9 ex Nat 3hr Std 6 ex Nat 24hr Std
	Hi-Way Jct	1.44	2.00	2.00	0.038	12	
	Anaconda						
	Post Office	0.23	1.05	1.05	0.011	12	
	Anaconda						
	Mill Creek	1.10	1.68	1.68	0.028	12	3 ex Nat 3hr Std 1 ex Nat 24hr Std
143	BN Site						
	Colstrip						

* site no longer submitting data

** data questionable

*** data unavailable at time of report

